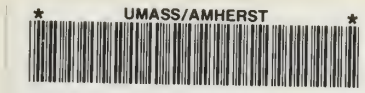

EXECUTIVE SUMMARY OF THE DRAFT STATE HEALTH PLAN FOR MASSACHUSETTS

Massachusetts Statewide Health
Coordinating Council

December 1978

FOREWORD

The Commonwealth's first State Plan for Health is going public. This draft plan -- which looks ahead to 1985 -- will be reviewed and discussed across Massachusetts over the next few months. The final version will emerge following a series of public hearings. Approval rests with the Statewide Health Coordinating Council, which represents both consumers and providers of health care.

Why is planning for health so important? First of all, health care concerns all of us, no matter what age we are, where we live, male or female, or how much money we make. The health care industry in Massachusetts is complex, diverse and highly sophisticated. It has far reaching influence, not only in the economic sense of providing jobs, but also in attracting and training top health professionals. The state's specialized care centers receive patient referrals from around New England, other parts of the United States, and foreign countries.

The present health care system consists of services ranging from preventive and routine care delivered in physicians' offices, clinics and health maintenance organizations to medical and surgical procedures requiring admission to general hospitals or specialized facilities. Services also include long term care: nursing homes and non-institutional support services available within the community. The plan views the health care system as a whole. It promotes coordination within the system so that people's health care needs are better served and health care resources are most efficiently used.

In addition to closely examining the health care system -- facilities, services, financing and regulation -- the plan makes a series of detailed recommendations.

Major themes reflected throughout the plan include:

-- A REGIONALIZED APPROACH to the planning and delivery of health care services, so that care ranging from the routine to the most highly specialized is accessible to all citizens, no matter where they live. Such an approach requires the establishment of a NETWORK of services so that patients may be easily and quickly referred or transferred from one health care setting to another, with necessary follow-up. Sharing among health care facilities within a region will also help to avoid unnecessary and costly duplication of services.

-- REDUCING SURPLUS HOSPITAL BEDS is a necessity, since Massachusetts is estimated to have about 5,000 more beds than it needs. Each empty bed costs money to maintain. Suggested methods to accomplish this goal include conversion to alternative uses, closing underused hospital beds and services and merging services where appropriate among two or more nearby hospitals. The purpose of this approach is to redirect health care resources where they will do the most good.

-- ALTERNATIVES to institutionalization should be developed to serve the mentally ill and retarded, the chronically ill or disabled, and the elderly. Community based alternatives to nursing homes and state mental hospitals include support services, such as home health care, homemaker services and residential treatment centers. Such alternatives will provide a less costly and more humane option for persons who choose to remain at home or within their community, if medically possible.

-- PUBLIC PARTICIPATION. This draft State Health Plan was prepared by the Statewide Health Coordinating Council, which includes representatives of hospitals, nursing homes, mental health groups, physicians, dentists, nurses, regional health planning agencies, businesses, unions and consumer groups. This is only a partial list. These representatives devoted many volunteer hours to develop the present draft plan.

-- PREVENTIVE MEASURES. Health is not simply medical care or "sick" care, but also "well" care. Health promotion, prevention of illness or injury and health education are important in keeping people well. Recommendations contained in the plan are geared toward promoting the benefits of proper nutrition and exercise and creating incentives to discontinue harmful behavior. In most cases, prevention is the first step to better health.

The plan's goal is to improve the health of the citizens of Massachusetts. It provides a basis for determining some of the state's health needs over the next few years. This plan should be viewed as a first effort, subject to ongoing expansion, refinement and revision.

The following Executive Summary highlights major issues and recommendations raised in each section of the State Health Plan. Once adopted, this plan will serve as a frame of reference for decision-making by consumers and providers alike on a variety of health care issues.

EXECUTIVE SUMMARY TO THE STATE HEALTH PLAN

CONTENTS

INTRODUCTION TO THE STATE HEALTH PLAN: SUMMARY

The Introduction to the State Health Plan offers a valuable briefing and background information on the Massachusetts experience in the delivery and regulation of health care services. Also discussed is how the State Health Plan became a reality—through months of effort on the part of regional health planning agencies, interested medical practitioners, professional staff from state health agencies, and the Statewide Health Coordinating Council.

Organization of the Plan is by chapters, or components. In addition to the INTRODUCTION, three other components concern the health care system as a whole. HEALTH STATUS discusses such population characteristics as mortality rates by type of disease; ECONOMICS AND FINANCE traces the cost of health care in both the private and public sectors; and MANPOWER profiles the number and distribution of persons employed in a variety of health professions.

The Plan also focuses on specific segments of the Health care system. ACUTE CARE considers all general hospitals, examining the delivery of general medical and surgical services as well as highly specialized and costly care. PRIMARY AMBULATORY CARE looks at a variety of settings, such as physicians' offices and health centers, which provide routine care and ideally serve as a "home base" for referrals to more specialized services when needed. LONG-TERM CARE describes the type of institutional and non-institutional services provided for the elderly and the mentally disabled.

Other State Health Plan components include: HEALTH PROMOTION—DISEASE PREVENTION and EMERGENCY MEDICAL SERVICES. MENTAL HEALTH AND MENTAL RETARDATION services are discussed within the ACUTE, AMBULATORY, and LONG-TERM CARE components in order to promote a coordinated approach to health planning.

Passed by Congress in 1974, a federal law set the stage for current health planning activities in Massachusetts and across the nation. The National Health Planning and Resources Development Act (PL 93-641) requires each state to produce a long-range plan for health through a "bottom up" public participation process. The law's intent is "to make quality health care accessible to all citizens at reasonable cost."

A network of regional health planning agencies guided by both consumers and providers of health care constitutes the "grass roots" or basic units for health planning within each state. Massachusetts has six Health Systems Agencies (HSAs), each of which has produced a regional plan—called a Health Systems Plan (HSP). The Statewide Health Coordinating Council represents the HSAs and other citizens involved with health care. The SHCC reviews these plans and offers comments to the federal Department of Health, Education, and Welfare (HEW), which funds the health planning network. The Massachusetts Department of Public Health is designated under the law as the State Health Planning and Development Agency (SHPDA). It coordinates health planning and regulatory activities on a statewide basis, working closely with the HSAs, the SHCC, and HEW.

With technical support from the SHPDA, the statewide Council has drafted the first State Plan for Health in the Commonwealth. The SHPDA, specifically through the Office of State Health Planning, also coordinates policy issues with other state agencies involved with health care. These include: Department of Public Welfare, Department of Mental Health, Rate Setting Commission, Department of Elder Affairs, and the Division of Insurance.

The State Health Plan, while including the policies and recommendations contained in the regional plans whenever possible, offers primarily a statewide perspective on health needs and policy proposals. It will be updated annually to reflect future changes in the health care system serving Massachusetts as a whole.

HEALTH STATUS COMPONENT OF THE STATE HEALTH PLAN: SUMMARY

The Health Status component of the State Health Plan discusses characteristics of the Massachusetts population and identifies prevalent health problems. The component stresses the importance of a population-based approach to health planning. Such an approach recommends changes in the health care system based on changes in the population and its health needs, rather than on the present availability and utilization of services. It examines the health status of the population in terms of traditional health status indicators (mortality rates, morbidity indicators), as well as from the perspective of prevention (i.e., which diseases, disabilities, hospitalizations, and deaths could have been prevented?).

Population growth in Massachusetts, as in the nation, has declined considerably since 1970 (current annual rate of increase is 0.5 percent), as compared to the previous twenty years (1.0 percent annual rate in increase). The state's birth rate has dropped markedly, although the number of women of child-bearing age has increased at more than twice the growth rate of the total poulation from 1960 to 1975. The implications of these trends have been felt in declining utilization rates of hospitals' maternity and pediatric services.

At the other end of the age spectrum, although the 45-64 age group is projected to remain constant in the population through 1985 (approximately 22 percent), the over-65 age group has increased in total numbers and in proportion to the total population. In addition, as in the nation as a whole, the proportion of people age 65-74 in Massachusetts is getting smaller in comparison to those 75 years and older. Despite its relatively small size, this age group represents the highest levels of morbidity, mortality and use of health care services of any population group in the Commonwealth.

Heart disease, cancer, stroke, influenza, and pneumonia remain the major underlying causes of death in the state. When these leading causes of death are examined by age-sex groups, however, a very different picture emerges. Only diseases of the heart and cancer are among the leading causes at every age.

Among the youngest population age group, accidents are overwhelmingly the leading cause of death. External causes of death, such as homicide and automobile accidents, generally seem to be higher for teenage males than for females. By the middle years, 45 and over, diseases of the heart and cancers replace accidents and violence as leading causes of death. These patterns become more pronounced in the 55-64 age groups and account for 50 percent of the overall death rate for the population. It has been estimated that if death from heart diseases and cancers were eliminated for the 55-64 group, the overall death rate for this group would be reduced by 67 percent.

While death rates from heart disease have declined slightly in the past decade, rates for cancers, especially of the respiratory system, continue to increase. For example, in 1976, there were 1,146 deaths reported in Massachusetts resulting from chronic bronchitis, emphysema or chronic obstructive lung disease (a death rate of 19.70 per 100,000 population); and 2,340 deaths resulting from cancer of the trachea, bronchus, and lung (a death rate of 40.23 per 100,000 population). These diseases and deaths, if caused by cigarette smoking, occupational exposure, and other environmental risks, were preventable.

The component contains encouraging information on infant mortality trends in Massachusetts. During the years 1970-1976, both Massachusetts and the nation experienced a decline in infant mortality. By 1976, Massachusetts had the lowest infant death rate in the country. Despite this overall decrease, however, a gap in rates persists among racial groups: non-whites have higher infant mortality rates. Continued reduction of infant mortality rates across all racial groups should be a priority of State health policy.

The component identifies teen-age pregnancy as a serious health and social problem in both the nation and the Commonwealth. Of approximately 67,000 total births in the state in 1976, there were approximately 5,250 births (8.0%) to mothers 18-19 years old, and about 2,750 births (4.1%) to mothers 17 years or younger. Pregnancy during the adolescent period places these mothers in the high-risk category. Further, there is a correlation between premature infants and the marital status of their mothers: a higher percentage of low-weight babies are born to unmarried mothers.

These trends indicate a need for developing strong programs in prevention, increased availability of economic, psycho-social support services and the availability of a regionalized system of perinatal and neonatal intensive care, organized by levels of care.

ECONOMICS AND FINANCE COMPONENT OF THE STATE HEALTH PLAN: SUMMARY

The Economics and Finance component of the Plan presents data on national and Massachusetts health expenditure trends by sector. It presents projected health expenditures to 1985. Finally, it reviews initiatives currently undertaken to cap increases in costs and spending, and reviews other potential approaches. Throughout this component, attention is paid to the impact of public policy both on costs and on resource allocation issues.

National Trends. Total health expenditures, which grew from $12.0 billion in 1950 to $139.3 billion in 1976, now represent nearly 9¢ of every dollar of the Gross National Product. Over time, the relative impact of a growing population on rising health expenditures has lessened. At the same time, prices, which account for one-half the expenditure increases in the 1950's, now account for nearly 80% of expenditure increases.

Components of total health expenditures have also grown rapidly. Hospital expenditures, totalling $65.6 billion in Fiscal Year 1977, are now over 40% of total health expenditures. Nursing home expenditures, $12.6 billion in FY 1977, have risen at an annual rate approaching 20% in recent years, and now comprise 7.7% of total health expenditures. Physicians' services have grown at an annual rate of roughly 9% from 1970 through 1976. Patients spent $32.0 billion for physicians' services in 1977, representing 20% of total health expenditures.

What accounts for these dramatic increases? Part (nearly one-third) can be traced to increased utilization (admissions to institutions and physician visits) and intensity (more tests and procedures per admission). Increased utilization itself reflects greater demand for health care due to rising income levels that permit individuals to purchase more and more costly medical services; and a rising proportion of the population over age 65. Broader insurance coverage reinforces these demand pressures. Even though health expenditures have multiplied 1000 percent since 1950, out-of-pocket costs to consumers have stayed nearly the same due to extended public and private health insurance coverage.

Insurance has traditionally covered inpatient care more comprehensively than outpatient care, and has thus promoted growth of hospitals at the expense of lower-priced ambulatory facilities. Growth in the supply of beds and supporting equipment has pushed up hospital costs and contributed to the overall rise in health expenditures.

Insurance also contributes to inflation because the cost-based payment system based on providers' "usual and customary" fees does not encourage efficiency; nor does it discourage prescription of procedures or drugs which may not be necessary. On the other hand, insurance coverage also affects access to care. Evidence shows a close correlation between earning power and possession of private insurance coverage. People who are not insured may postpone or forego routine primary or preventive care, a decision which may result in more severe illness and more costly care.

Massachusetts Trends. Massachusetts health expenditures, at $4.9 billion in Fiscal Year 1976, represent a greater per capita resource rise in health care than the national average (30% higher). They draw 11% of Gross State Product, compared to a U.S. total of 8.6% of GNP.

Data on Massachusetts health expenditures have been gathered through the Funds Flow Project of the Massachusetts Office of State Health Planning. Funds Flow efforts have been devoted to totalling expenditures by private and public programs (federal, State and local) and by type of expenditure (hospital, physician services, etc.). These data have been presented in the Plan component and, in greater detail, in a series of special reports (available through OSHP).

The public sector in Massachusetts spends more for health on a per capita basis than the national average. This is evident for per capita Medicaid spending (70% higher in 1976). Medicare spending per person over 65 (7% higher), and over-all per capita health expenditures (25% higher). There is evidence, however, that other states are "catching up" with Massachusetts in per capita public spending levels.

As is the case nationally, hospital utilization patterns help explain expenditure growth in Massachusetts. Although the bed-to-population ratio in Massachusetts is now lower than the national average, expenditures per capita are 43% higher in the Commonwealth. Higher occupancy rates and use of more total capital assets per capita in Massachusetts hospitals account for much of this difference.

Funds Flow data and reasoned estimates of how current and projected policies will affect specific sectors are combined in projections of 1985 health expenditures for the State. If past trends were simply projected, Massachusetts would spend about $5.5 billion on hospitals and $2.2 billion on nursing homes in 1985. Efforts to restrict institutional growth should permit expenditure growth to $4.2 billion for hospitals and $1.5 billion for nursing homes, a total "saving" in these sectors of nearly $2 billion. Expenditures will grow in other sectors, however, especially those ambulatory services that can substitute for inpatient care, such as physicians' services (targeted at $127 million higher than the present trend) and dentists' services ($40 million higher). Thus, the substitution of ambulatory for institutional care, which changes in private insurance coverage and public policy initiatives should promote in the future, will lead to slower cost increases in some sectors but more rapid increases in others. Overall, the component predicts $2.0 billion less health expenditures in 1985.

Expenditure Caps. Consumer (and business) resistance to higher medical costs should grow as health expenditures consume more of families' incomes, and as higher health insurance premiums cut into employers' profits. As regulatory programs to control costs and consumer intolerance of cost inflation press on expenditure increases, a prime goal for public policy must be to encourage more efficient and effective use of limited resources in the health care industry. Much study is needed to understand the feasibility and the cost effectiveness of various approaches to providing care and to better coordinating the health care system.

Cost control activities now underway in Massachusetts include regulatory programs which focus on health care institutions, and related programs which encourage more cost effective delivery of services and development alternatives to institutional care.

The Commonwealth has built its institutional cost containment policies into four programs.

- The Determination of Need (DoN) program requires that capital investment by health facilities over $150,000 be approved by the Department of Public Health. DoN is linked to the planning process by a federal requirement that the State Health Planning and Development Agency review proposed new services. DoN thus affects both cost containment and proper resource allocation goals.

- Standards and criteria development is vital to guide decisions on "need" made through the DoN program. These standards shape decision-making at all levels, by providing a common language and frame of reference for weighing the cost and efficiency merits of specific capital investment proposals.

- Long range planning, through the one and five year plans of each hospital, forces hospitals to anticipate major expenditures by requiring identification of expected DoN applications in each hospital's five year plan. Also, hospital plans must address national health goals, such as improving access to care, participating in multi-institutional arrangements and containing costs.

- Rate Setting: The Massachusetts Rate Setting Commission currently sets rates for Medicaid charges and approves Blue Cross contracts with hospitals. Under recent legislation, the Commission is moving toward a system of total control over hospital charge increases to the public, and is studying the implications of instituting a plan for prospective reimbursement of hospital costs.

Further studies of program effectiveness will be possible once several years' data are available to show the total impact of these expenditure capping programs.

Other Programs to Encourage Cost Effectiveness. Other programs sponsored by the Commonwealth aim at reducing costs in the non-institutional part of the health care system.

The Health Maintenance Organization Act of 1976 removed obstacles to HMO development in Massachusetts. HMOs are prepaid comprehensive health care plans; enrollees pay a fixed monthly premium regardless of the amount of services they use. HMOs emphasize prevention, early diagnosis and outpatient treatment. They provide incentives to minimize hospitalization.

The Department of Public Welfare has expanded lower cost home-based care programs and has developed regulations to assure that public medical assistance payments go for services considered medically necessary and cost effective. The "Second Opinion" program, mandated for certain elective surgical procedures requested by Medicaid patients, may help reduce costs by curtailing "unnecessary" surgery.

Massachusetts' 1970 law requiring physicians to make the generic or chemical name of a drug available to patients was designed to permit substitution of lower-priced generic drugs for equivalent high priced "name brands."

The Department of Public Health has promoted disease prevention and life style change, in an attempt to curtail the demand for treatment of certain conditions related to heavy smoking, lack of exercise, and careless driving.

Potential Approaches. Other approaches to cost containment and efficient resource distribution and use are based on extensions of existing initiatives.

Regulatory ceilings on operating expenditures and capital investment can be extended and applied through built-in incentives for hospital efficiency. An alternative "free market model" that deemphasizes regulation might encourage greater competition among providers by subsidizing consumer free choice through tax incentives.

Certain policies aimed at cost control have implications for the quality of medical care as well. If hospitals that do not conform to minimum licensure requirements or acute care standards and criteria are closed, cost savings may occur along with an improvement in the overall quality of acute care in an area. Quality assurance programs for health care institutions are obvious complements to efforts to control costs, because they should help define and maintain the standards of service when pressure to cut back spending is exerted.

Some evidence suggests that health care expenditures increases in Massachusetts have moderated in recent years. Considerable study will be needed to determine how much of this trend can be attributed to deliberate public cost-containment effort, and to weigh the implications of cost cutting for the efficient and effective use of health care resources in this state.

HEALTH PROMOTION AND DISEASE PREVENTION COMPONENT OF THE STATE HEALTH PLAN: SUMMARY

Ten years ago, many Massachusetts residents might have been surprised to read in the Journal of the American Medical Association, that:

> Many people mistakenly believe that health care is synonymous with medical care. Health is, to a large degree, a matter of personal responsibility that must be exercised within the limits of genetic endowment . . . As a general rule . . .medical care has relatively little impact on health. Measurements that supposedly reflect health, such as morbidity, longevity, growth, and development are not measures of the quality of medical care being received.

Equally impressive is this recent observation made by a former DHEW Assistant Secretary for Health:

> The United States has operated far too long on the premise that a vast (medical) care system can compensate for the failure of society to attend to the preservation and maintenance of health. That notion is at least partly responsible for the tripling of health care costs within the present decade and for the more than tenfold increase of the last quarter century. Even if our economic resources were unlimited, which clearly they are not, medicine would be hard put to justify a mode of action that failed to give the fullest possible attention to fostering health as well as to aiding those whose health is in one or another way impaired.

These statements on health, medicine, and prevention underscore important trends in health planning in Massachusetts in both the public and private sectors. Against this background, the Commonwealth has reaffirmed its historic commitment to health promotion and disease prevention services planning through the drafting of the first State Health Plan's Health Promotion and Disease Prevention component.

Major concerns reviewed in the SHP Health Promotion and Disease Prevention component include: concepts of health, disease, and prevention; environment and lifestyle and their influence on health; and agency responsibilities in prevention and health promotion. Specific issues addressed include: nutrition, smoking, physical inactivity, drug abuse, accidents, dental health, school health services, occupational health, and consumer health education. The need for third party reimbursement for preventive medicine services is noted.

Central to the component's overview of the Commonwealth's major health problems is the recognition that many of these problems are explicable events that can be prevented, minimized, or controlled. The SHP Health Status component indicates the incidence of preventable disease and premature death in Massachusetts. The Health Promotion and Disease Prevention component addresses these issues in greater detail. In 1976, the ten leading causes of death for Massachusetts residents accounted for 86% of all Commonwealth deaths. Most prominent were deaths from cardiovascular disease, cancer, cerebrovascular disease, and accidents. All of these conditions have been associated—in a great many instances—with environmental influences and personal behavior ("lifestyle")

factors. Nationally, it is estimated that 60-90% of all cancer is associated with environmental conditions. At least half of all motor vehicle-related deaths involve driver or pedestrian alcohol abuse. Obesity, work-related stress, smoking, and a sedentary lifestyle are among the "controllable" factors known to be associated with coronary heart disease.

The influence of environmental factors on health patterns in Massachusetts is considered throughout the Health Promotion and Disease Prevention component. Environment is broadly defined as the aggregate of all factors and conditions external to the individual. It is often difficult to examine one environmental health problem - the effects of community exposure to air pollutants, for example - without also considering larger social issues such as patterns in residential segregation, land, and energy use. Income, occupation, education, race, and language are all recognized as being factors with significant influences on health. Often, differences in the incidence of particular health problems, among different age groups, and between the sexes, seems to be more of a cultural than an anatomic phenomenon. The patterns of health in Massachusetts are often both product and cause of environmental change. Within environmental constraints, most individuals have significant opportunities to influence personal health through decisions on health-related matters such as smoking, diet, immunizations, and physical activity.

To take advantage of the benefits that disease prevention and health promotion offer will require the widespread acceptance of basic attitudes towards health and disease: the belief that individuals and communities must retain primary responsibility for their own health; the notion that illness and injury usually represent a departure from the human norm; and, the understanding that medicine and public health are arts and sciences which should be concerned with maintaining health as well as with restoring it. The component indicates specific areas in which health agencies can work to improve population health status through organization efforts in health advocacy, education, research and evaluation, and interagency coordination. The need for expanded school health and adult education and health promotion programs receives special attention among component goals. The workplace is recognized as an important environment within which individual health promotion can be encouraged.

The central themes of the SHP Health Promotion and Disease Prevention component are summarized in the component's first goal statement:

> The Commonwealth's basic health policy should consistently focus on its overriding goal of health promotion, always emphasizing the traditional objectives of Commonwealth public health programs: "To maintain, protect, and improve the health and well-being of the people." There should be a refocusing of the Commonwealth's health care system, measured in part by a reallocation of resources in the public and private sectors, with system responsibilities expanded to include the healthy as well as the sick, emphasizing preventive medicine over curative medicine, and encouraging health maintenance, consumer education, interdisciplinary cooperation, and health promotion in place of the now dominant crisis-response approach to individual health problems.

No single agency or single set of agencies can carry the full responsibility for health promotion in the Commonwealth. Together, however, diverse groups of concerned individuals and organizations can being to shift public attention from disease treatment to health maintenance. Health planning agencies especially have an important role to play in initiating this trend.

AMBULATORY CARE COMPONENT OF THE STATE HEALTH PLAN: SUMMARY

The Ambulatory Care component is built upon a carefully derived definition of primary health care. Traditionally, attempts at a definition of "primary care" have focused on the personnel used in delivering it or the setting in which it is delivered. It has also been defined as "first contact" or "entry level" care. The State Health Plan attempts to go beyond these definitions, and to define primary care in terms of the characteristics of primary care services. Based on a definition developed by the Institute of Medicine, the Plan defines primary care as comprehensive care in which the provider or providers assume responsibility for the total management of the patient on an ongoing basis, both in and out of the hospital, in nursing homes and other institutions. Primary care providers manage most of the patient's medical care, using specialists only as consultants; the patient is referred back to the primary care providers for ongoing care. Primary care stresses the educational and psychosocial aspects of health, as well as the pathology of disease.

This definition is at the heart of the philosophy of the Plan in that it automatically requires formal coordination among the ambulatory care system and other parts of the health care system, i.e., acute care, long term care, and mental health. The Plan assumes that one of the chief problems of the health care system is fragmentation. The definition of primary care assumes that fragmented care, in which patients see multiple providers with no coordination among providers, is costly in terms of quality as well as economics. So, too, the entire Plan assumes that fragmentation of the various components of the health care system is ineffective and costly.

Therefore, it stresses that regulation, medical education, reimbursement and the organization of primary care delivery systems are interrelated and must be linked in the planning process. Planning and regulatory efforts cannot concentrate on one aspect of the system to the neglect of the others. The component recommends that regulations and rate setting initiatives consider training needs; that reimbursement systems provide incentives for primary care programs; that allied health professionals be integrated into the proposed system. In short, it calls for the development of an integrated system in which each proposal for one part of the system is tied to other parts.

The foregoing statements do not mean that the Plan is mandating one delivery system to be implemented statewide. On the contrary, it proposes that any number of alternatives be encouraged for the delivery of primary care, including HMOs, Community Health Centers, hospital based ambulatory care, and group practices. It does propose, however, that whatever form it takes, the delivery of primary care should be consistent with the definition of primary care and the model proposed in the Plan.

Isolated services which have been considered "primary care" in the past should be linked to primary care centers which meet the Plan's definition of primary care. A hypertension screening clinic, for example, provides a primary care service. While its service is part of primary care, such a clinic does not meet the requirements for on-going management and continuity which are consistent with the Plan's definition of primary care. The Plan does not call for eliminating such a clinic, but rather for linking it to primary care centers so that patients are assured follow-up. This is consistent with another key principle of the Plan: appropriate existing community resources should be utilized and the delivery system should grow out of such resources.

Finally, the Plan recognizes that an increase in primary ambulatory services, effectively coordinated with other services, is necessary if inappropriate use of inpatient care is to be reduced. Financial resources for health care are limited, and therefore it is necessary to explore the most cost efficient methods of delivering primary care. However, if the primary care system is to expand to take care of those consumers who previously had no source of care, as well as to provide services to those who in the past have received expensive institutional services, then additional financial resources must be made available. This influx of new financial resources into the system must be coupled with ways of controlling costs, increasing effectiveness, and integrating primary care with other services.

The Plan also targets high priority areas in the state. The methodology used assumes a relationship among socio-economic, demographic, and health status variables and the need for health care, and relies heavily on information provided in the Health Systems Plans. It does not replace methods used in the HSPs, but allows comparisons across Health Service Areas on a uniform basis.

Summary of Recommendations. The following list highlights the recommendations in the Plan regarding primary ambulatory care:

- New regulations and conditions for reimbursement to health care providers which incorporate the Plan's definition of primary care should be developed.
- Formal referral arrangements between primary care programs, and institutional services should be established.
- Reimbursement incentives should be established for primary care.
- Mechanisms should be developed to ensure that primary care centers are financially sound operations.
- Mechanisms should be developed to encourage the use of alternative manpower in the delivery of primary care.

- Studies should be developed to evaluate cost of care in alternative settings.

- Financing strategies should be developed which take into consideration case mix, teaching and free care in reimbursing primary care programs.

- A task force should be established to develop a strategy for integrating reimbursement methodologies into one uniform system and to explore other reimbursement issues.

- Physician training programs which emphasize primary care should be encouraged.

Mental Health. The primary ambulatory care component reflects a strong commitment to the concept that physical and mental health services must be integrated. As mental health care moves away from large institutional settings into the community, and shifts from an emphasis on inpatient to outpatient care, it is important for health planners to understand the rationale for community-based mental health care and to develop a system that is appropriate to the unique needs of the mentally ill and mentally retarded.

Recognizing changes in care associated with the use of medication, the expanded financial reimbursement for outpatient services, and the impetus of federal and State legislation, the Commonwealth is committed to the goals of developing an extensive support system offering comprehensive and coordinated treatment and rehabilitation services in the community.

To this end, the State Health Plan supports the development of a full range of day and support programs within each mental health planning and service delivery area (called "catchment areas"), so that no one remains unnecessarily institutionalized or is inadequately served in the community. Services such as pre-screening to assess proper placement and minimize inappropriate placement must be expanded within community mental health and general health settings, such as HMOs, emergency rooms, and Community Health Centers.

The Department of Mental Health, together with other agencies, should continue their efforts to plan for expanded development in alternatives to inpatient care, such as day hospitalization and community residential alternatives. Reimbursement strategies which guarantee revenues to community mental health centers are a prerequisite to such alternatives.

There are a number of community based settings which are oriented solely to mental health, e.g., community mental health centers, partnership clinics, psychiatric day treatment services. Many of these services provide much needed follow-up care and specialized mental health care that is not adequate nor necessarily available in general health settings.

As current health trends seem to indicate, there is much developmental activity in the area of primary health care as a more effective and more appropriate setting than acute hospitals. And yet, how best to organize the system to be cost effective and efficient, while responding to the different philosophical perspectives, professional training, and historical precedent of separate systems of care, is a matter of intense discussion among mental health and health planners.

The following list highlights the recommendations for ambulatory mental health care:

- Mental health services should be expanded in community health centers through teams of professionals, including psychiatrists, psychologists, and psychiatric social workers.

- Mental health services should be included within HMOs, emergency rooms, out-patient departments, and general health clinics. These services also should be available to patients in general medical/surgical and maternity services and pediatric patients in need of psychological support.

- Primary care settings should be required to have sliding fee scales to promote financial accessibility for all economic groups.

- Reimbursement opportunities for outpatient care in primary settings should be expanded to serve as an incentive for persons to seek outpatient rather than inpatient care.

- Continuing education should be provided for public and private agency professionals and paraprofessionals to enable them to provide adequate, appropriate mental health care.

Dental Care. The dental care part of the ambulatory care component of the SHP recognizes that there is extensive unmet need for dental services in the Commonwealth, in large part because of the lack of fluoridation in Massachusetts in previous years. The Plan also recognizes that more studies are necessary regarding the oral health status of the Commonwealth and specific areas of need within it. It also stresses that the lack of third party coverage for dental services and the maldistribution of dentists present barriers to dental care. Acknowledging that dental care is an integral part of primary health care, the Plan calls for the integration of dental services into primary care programs either by direct delivery of such services in primary care programs or by establishing formal referral patterns between dental and primary care programs. The Plan also calls for the expanded use of dental auxiliaries.

The following list highlights the recommendations for primary dental care:

- Available dental resources and dental health shortage areas should be identified.

- Demonstration school-based preventive dental programs which are linked to primary care programs should be established.

- Primary dental services should be integrated into primary care programs.

- Third party coverage for dental services should be increased.

ACUTE INPATIENT CARE COMPONENT OF THE STATE HEALTH PLAN: SUMMARY

Acute Inpatient Care is the most extensive component in the State Health Plan. Characteristics and issues surrounding all acute care hospitals are described first. A detailed "Critical Data" section then takes a close look at each hospital in the state and provides specific information, such as number of beds and occupancy rates. The final section discusses selected acute care services -- some of which are highly specialized -- and makes recommendations for the future.

The primary focus of this component are the State's short-term general hospitals. However, acute care services are examined in terms of their relationship to other parts of the health care system, such as primary ambulatory care and long term care. The plan promotes development of regional arrangements among institutions for sharing, converting and consolidating services and for organizing referral networks.

The component builds on established State health policy as stated in the Acute Care Standards and Criteria, which are decision-making rules used in reviewing Determination of Need applications. These regulations were developed in close cooperation with State agencies, Health Systems Agencies, the Massachusetts Hospital Association and Blue Cross-Blue Shield.

The Critical Data section compares all Massachusetts hospitals to State and federal standards and guidelines for such indicators as number of beds and occupancy rate. These standards allow for exception factors, such as geographic isolation or a high-risk patient mix. The Plan states that the Acute Care Standards' 90 percent occupancy rate for medical/surgical beds will be re-evaluated. While it is recommended that non-isolated community hospitals have a minimum of 150 beds and geographically isolated hospitals no less than 100 beds, the Plan again allows flexibility as opposed to applying rigid standards.

The Acute Care Standards and Criteria project bed need to the year 1985. They include both quantitative and descriptive factors, as well as a bed need formula. This formula is one element in a decision making process, which also includes quality of care considerations and economic issues. Both the regional Health Systems Plans and the State Health Plan have used these standards as the framework for their Acute Care components.

The Plan addresses the controversial issue of surplus hospital beds and services across the state, particularly in certain regions. One of the Plan's major goals, determined by a careful analysis of the entire system, is to achieve a bed-to-population ratio of 3.4 per 1000 by 1985. This roughly translates to shrinking the system by several thousand beds. Some of these will be phased out of the hospital sector; others will be converted to other, more appropriate uses such as ambulatory care or long term care.

Implementing the bed reduction goal may involve some degree of inconvenience for health care providers and consumers. If local hospitals decide to merge their pediatric or maternity services, for example, some patients may have to travel further from home to obtain care in their region. If facilities close, some employees may have to be relocated or retrained.. However, considerable improvements can be realized in the efficiency and cost-effectiveness of delivering services, and in the appropriateness and quality of care, when several institutions develop coordinated programs in a regionalized system of care.

The component's Critical Data section highlights hospitals which do not meet State and federal standards for acute care. It provides information to guide decision-making at the regional level for reorganizing acute care service delivery. It is hoped that HSAs will incorporate the Critical Data section in their Health Systems Plans.

This emphasis on decision-making at the local level stems from the Plan's recognition of community hospitals as a valuable source of quality health care services, of jobs, and of local pride. The Plan also acknowledges the special characteristics and issues of the tertiary care center and teaching hospital.

Recommendations within the State Health Plan encourage neighboring facilities to talk with one another and develop joint approaches to planning and problem solving. When previously recommended in a Health Systems Plan, specific institutions are cited for merging, conversion or closure of services. In most cases, however, the data are presented for the institutions and the HSAs to work out the best arrangements for their region.

ACUTE CARE HIGHLIGHTS: ISSUES AND RECOMMENDATIONS

Medical/Surgical. Recommendations for medical/surgical services are based largely on the Acute Care Standards and Criteria and the National Guidelines for Health Planning. Certain modifications in those guidelines, however, take exception factors into account. For example, the Acute Care Standards and Criteria establish 90% as the minimum bed occupancy rate for medical/surgical units. Since most hospitals in Massachusetts do not meet that standard, the State Health Plan Guidelines for Acute Care use 80% as a basis for highlighting institutions in the Critical Data section.

Recommended minimum hospital sizes (150 beds for non-isolated hospitals and 100 beds for geographically isolated hospitals) are based on the acute care standards, but also on data on hospital occupancy by size of hospital. These data show that, generally, hospitals under 100 beds have very low occupancy rates. Smaller hospitals which can demonstrate economic viability and quality may be considered exceptions to this proposal.

Some flexibility is also allowed in analysis of services' use rates. The use rate, expressed in patient days per 1000 population, represents the number of days of care in an acute inpatient hospital needed by a specific age group or needed in a specific service. The Plan emphasizes that use rates are considered a planning guide for projecting bed need to 1985 and allows for certain exceptions, such as case mix.

The issue of swing beds or swing units is examined. These are units or beds which can be used to accommodate changes in demand for different types of services (e.g., medical or pediatric) as need arises. Use of swing beds provides some flexibility when a hospital is faced with an underutilized service.

Maternal, obstetric and newborn care. Until this year, Massachusetts has experienced a declining birth rate which has resulted in underutilization, closing, and consolidation of maternity units across the state. As of 1976, 64 hospitals in Massachusetts had maternity units (1,569 beds, average occupancy 61.9%). During the previous 15 years (1960-1975), 58 hospitals closed their maternity units.

Both the State's working guidelines for maternity and obstetric care and the National Guidelines for Health Planning for obstetrical services recommend minimum occupancy rates and number of births annually. They encourage referral networks and regionalization. These guidelines recommend that maternity units have 1,000 deliveries annually, or that units have 14 beds with a 75% occupancy rate and a 3.5 day average length of stay. Smaller units are permitted if they are geographically isolated. The component recommends development of an appropriate bed need formula for maternity units in Massachusetts.

For use in developing regionalized maternity services, the State Health Plan defines three levels of care:

Level I: services for uncomplicated normal deliveries; Level I facilities should have at least 500 deliveries annually.

Level II: services for more complicated deliveries; Level II facilities should have at least 1,500 deliveries a year.

Level III: services for the high risk mother and newborn requiring intensive, highly technical care; Level III facilities should serve regions with 8,000 to 12,000 births annually.

The number of deliveries at Massachusetts hospitals with maternity units for 1975 and 1976 are listed in the Plan. Hospitals, the HSAs, and the SHPDA should consider these data as they group maternity units according to levels of care. The component's goals call for coordinating delivery of care among Level I, II, and III facilities, as well as among primary care physicians, nurse midwives, community health nurses, and social, psychological, and nutritional services.

Alternatives in maternal and newborn care are examined. It is recommended that the effect of changing trends in child birth (such as natural child birth, or shorter hospital stays) on bed need planning should be determined. The concept of the Out-of-hospital Birth Center - providing prenatal care, labor and delivery services, and post partum care, and linked with a hospital for emergency back-up obstetrical services - is also explored.

Pediatric care: The first State Health Plan considers pediatric services to be units serving patients under 15 years of age. Although this definition is subject to some question (for example, should older adolescents be included in pediatric units or in medical/surgical units?), it is consistent with present State pediatric standards and licensure requirements. The component's recommendations call for reevaluating this definition.

The feasibility of developing alternative approaches to acute pediatric care should be explored. Such determination should include consideration of establishing separate pediatric rooms within medical/surgical units for children ages six through 14 or in other age ranges and of using swing beds for patients over 14 years within pediatric units.

Based on 1976 data, there are 94 acute care hospitals in Massachusetts with pediatric services (total beds = 2,557 for the State, with an average occupancy rate of 57.6%). State pediatric standards recommend a range of

minimum occupancy rates, based on the annual number of pediatric admissions to a facility. Certain exceptions from the standards are permitted for geographic isolation and extremes of climate, and for keeping beds available for special age groups and types of cases.

The concept of regionalized pediatric care is emphasized to assure that all levels of pediatric services are available to children within defined geographic areas.

Acute Inpatient Psychiatric Services. This section suggests definitions for an acute psychiatric unit in a general hospital, and for patients appropriate for these types of services, including those unwilling to be admitted voluntarily. One recommendation calls for the State to adopt psychiatric standards and criteria. Future State Health Plans will address the needs of children and adolescents for acute psychiatric services.

The Plan builds upon the Department of Mental Health's planning areas, called catchment areas, for planning and delivery of psychiatric care. Under this concept, the catchment area is the focal point for coordinating care and support services, and assuring continuity of care for clients.

Any acute inpatient psychiatric unit operates in conjunction with other community based services. The range of community mental health services should include screening, partial hospitalization, post-hospital care, residential alternatives, as well as emergency care and crisis intervention. An adequate supply of alternatives to inpatient care is desirable, because these alternatives have been shown to reduce inpatient utilization in both length of stay and admission/readmission rates.

The best mechanism for assuring appropriate intergration of services is the "affiliation agreement," a formal arrangement between an acute pyschiatric unit and its catchment area program which assures continuity of care. The component calls for affiliation of all general hospital inpatient psychiatric units with DMH area programs as stipulated within a "model" affiliation agreement to be developed by the Task Force on Acute Psychiatric Standards and Criteria.

The component proposes a method for determining need for acute psychiatric beds. It notes that the bed need formula should give adequate attention to and incorporate provisions for the need for beds for persons who are to be deinstitutionalized, based on DMH plans to reduce acute bed capacity within State mental hospitals. The need for acute psychiatric beds is currently determined on the basis of a formula which, on a statewide basis, provides for .44 acute psychiatric beds per 1,000 adults. In addition, the formula allows for establishment of one additional psychiatric bed in the community for every two acute psychiatric beds closed in the state hospitals.

Financial and economic considerations are also addressed. Special attention is given to the relative costs of treatment in State and community hospitals, the financial requirements of community based alternatives (such as supervised residence programs), and the financial impacts on third party payers.

Ancillary Services. Ancillary services are procedures or tests, such as x-rays, which aid in the diagnosis and treatment of illness or injury. During the 1971 to 1977 period, the availability and utilization of ancillary services in the State increased to the point where they now represent nearly

one-half of total per diem hospital costs. Several factors have contributed to this rise in ancillary services', utilization, such as: new developments in medical technology; expanding training programs; the practice of "defensive medicine"; availability of third-party payment for services; limited regulatory controls on their development, use and charges; and consumer demand for "the best" care, often interpreted as care involving many procedures and tests.

Before new technologies or procedures become common practice, their medical benefits and risks must be thoroughly analyzed in relation to their costs. Analysis of this kind can be a costly and time-consuming process. The state of the art in technology assessment is limited. These facts do not diminish the necessity of further research and continuing evaluation, however.

The first State Health Plan does not discuss specific ancillary services, but refers to the DoN guideline development process presently underway. Future State Health Plans will consider ancillary services for which national guidelines exist and State standards and criteria have been promulgated as DoN regulations.

Tertiary Care refers to the most highly specialized services, usually offered at regional centers serving patients with high risk illness or injury. The State Health Plan examines two types os tertiary care services: neonatal intensive care services for high-risk mothers and infants and End State Renal Disease services for severe kidney disease. The component does not run the gamut of tertiary care services. Planning and coordination of tertiary care services require that the SHPDA take a strong leadership role. Analysis of tertiary care issues over time and development of standards and criteria must also involve significant input from Massachusetts teaching hospitals and the HSAs.

Neonatal Intensive Care. There are two types of highly specialized tertiary care services for the high risk mother and infant, perinatal and neonatal intensive care. Perinatal intensive care services address serious maternal-fetal problems. Three levels of neonatal intensive care have been defined, to reflect the newborn's progress from illness to convalescence.

- Level III for those infants requiring maximum intensive care
- Level II for those infants requiring intermediate care
- Level I for infants requiring recovery and growing care.

The Plan recommends that both perinatal and neonatal intensive care services should exist in the same facility in order to avoid the need to transfer the sick newborn. The admission of the high risk pregnant woman to a perinatal center that has a neonatal intensive care unit is therefore recommended.

Perinatal and neonatal intensive care services should be organized and regionalized. The State Health Plan defines a regionalized perinatal program as follows:

One or more perinatal centers in a specific service area coordinates functions such as laboratory services, consultant and referral services, and education. A regional perinatal center provides intensive maternal-fetal care for high risk [illegible] area, including patients transferred

from community hospitals. A neonatal intensive care unit (NICU) provides three levels of care for high risk newborns within a defined service area -- maximum intensive care, intermediate intensive care, and growing and recovery care. A NICU is part of a regionalized perinatal program and should ideally be located within the same facility as a perinatal center.

Eight hospitals in Massachusetts provide tertiary care services for the high risk pregnant woman and newborn. Designated transfer centers may receive high risk maternity and newborn patients from community hospitals. Data on transfers to neonatal transfer centers cited in the Plan show that the regionalization concept has been adopted.

Recommendations include developing definitions for levels of care for neonatal intensive care units; and developing an appropriate bed need formula for neonatal intensive care beds.

End Stage Renal Disease. End stage renal disease (ESRD) is that stage of renal (kidney) impairment which is virtually irreversible by present medical techniques. The two major methods of treatment for ESRD are dialysis and transplantation. In the more common type of dialysis, hemodialysis, a machine clenses impurities from the blood. The procedure takes 4-6 hours and must be done 2-3 times a week throughout a patient's life. Hemodialysis can be performed at home, in a free-standing facility, or in a hospital. In self-dialysis, patients are trained to perform dialysis themselves at home or at an out-patient facility, with limited assistance.

The major recommendations of this section are:

-- Encourage the use of home and self care dialysis, with a 1985 target of 50% of ESRD patients on this type of treatment. To implement this objective, all types of third party reimbursement must be adapted to be more favorable to this cost effective and psychologically preferable form of treatment.

-- The number of kidney transplant patients should increase by 10% by 1985, thus avoiding costly and time consuming dialysis treatments when medically possible.

-- Travel time to a dialysis facility should be within 30 minutes (one way) and travel time to a transplantation facility should be no more than a 2 - 3 hour trip (one way).

-- All facilities offering dialysis treatment should arrange for training programs in home dialysis and self care.

EMERGENCY MEDICAL SERVICES COMPONENT OF THE STATE HEALTH PLAN: SUMMARY

Emergency Medical Services (EMS) refer to those services utilized in responding to needs for immediate medical care in order to prevent loss of life or aggravation of physiological or psychological illness or injury. Emergency Medical Services are usually described as a system which provides for the arrangement of personnel, facilities and equipment for the effective and efficient coordination and delivery of emergency medical services in an appropriate geographic area.

The EMS Systems Act of 1973, P.L. 93-154, identifies elements of an EMS system: manpower, training, communications, transportation, facilities, critical care units, public safety agencies, consumer participation, accessibility to care, transfer of patients, standard medical record keeping, public information and education, evaluation, disaster linkage, and mutual aid agreements. These elements have been combined into five functional sections, described below.

The key to cost effective EMS is the existence of a high degree of coordination among a variety of multidisciplined providers. An important vehicle for this coordination is the regional network of EMS committees. For purposes of EMS development, Massachusetts was divided into six EMS Regions, and twenty-eight regional sub-divisions or areas. An attempt was made to establish committees to work on each of the five major EMS sections in each region. The regional Comprehensive Health Planning agencies, which preceded the present Health Systems Agencies, were subcontracted to organize these committees, and to facilitate EMS development at the local level. The major focus of their activities has been on the five functional EMS sections:

- Hospital/Medical - assess each community's EMS resources and needs in six clinical categories: trauma, pediatrics, medical (including cardiac), poison/drug overdose, alcohol and psychiatric. Develop and implement area and regionwide point of entry plans, based on an evaluation of each hospital's ability to provide the specific type of emergency treatment required for each category. These plans should note the appropriate initial facility to which particular critical patient should be taken, based on the nature and severity of the patient's illness or injury.

- Communications - assist in upgrading current communications capabilities (ambulance to hospital, hospital to hospital), including communications protocols. Establish regionwide communications system to link in with the statewide EMS Communications Network.

- Transportation - assist providers and municipal officials in making informed decisions regarding their role in the EMS system; and in meeting standards of the Massachusetts Ambulance Law.

- Training - assist in coordinating training for Emergency Medical Technicians.

- Public Education - inform the community regarding the need for improved EMS services and secure their support for EMS development activities.

The primary policy emphasis of the EMS component is based on the following principles:

- The reduction of death and temporary and permanent disability resulting from sudden illness and injury;

- The assurance of prompt and proper treatment at the scene, enroute to, and within a medical facility;

- The assurance of continuity of treatment in a facility with treatment capabilities appropriate to the patient's needs for stabilization, definitive critical care, and rehabilitation.

LONG TERM CARE COMPONENT OF THE STATE HEALTH PLAN: SUMMARY

Long term care refers to health, social, and residential services provided to chronically ill or seriously disabled persons over an extended period of time. Many service providers also treat patients with short-term, mostly post-acute hospital illnesses. Long term care providers include chronic disease and rehabilitation hospitals, skilled nursing facilities, intermediate care facilities, rest homes, State schools for the mentally retarded, State hospitals for the mentally ill, home health agencies, homemaker services, adult day care, congregate housing, intermediate care facilities for the mentally retarded (ICFMRs), and community residences.

The Plan's basic policy emphasis in both the physical and mental health/mental retardation sectors is to reduce the over-reliance on institutional services and to promote the development of an extensive network of non-institutional, community based services. While the Plan projects a need for additional nursing home beds to meet the needs of an increasing elderly population, the total projected need is less than would be necessary if we were to continue to rely upon institutional care in 1985 as heavily as we do in 1978. It is also recommended that the number of patients in State schools for the retarded and State mental hospitals decline in absolute terms.

Importance of Developing Noninstitutional Services. In place of institutional care, the Plan recommends the development of a comprehensive range of noninstitutional services for the population that does not require institutional level care. The rationale for this policy is based on the following assumptions: First, it is generally agreed that the elderly and chronically ill prefer to remain in the community with necessary support services and that this should be supported as long as it is both medically feasible and cost-effective. Second, a significant number of elderly and chronically ill have been placed in institutional settings in the past, not for medical but for social reasons, such as the lack of support services. Had appropriate community-based support services been available, many of these inappropriately institutionalized people could have remained in their own homes. Third, long term care services are heavily supported by public funds, and resources are limited. Public funding sources are being stretched thin and will be unable to finance the development and expansion of community-based services while continuing to support a potentially rapid growth in institutional care resources. It is hoped that by shifting reliance to community-based services, a more cost-effective long term care system will result. However, it is crucial to understand that the increasing elderly population alone will require substantially increased long term care services.

Central to the proposed policy is that the constraint on the bed supply is strongly tied to the actual funding and development of alternative care services. If these services are not developed, then additional institutional resources will be needed. It is only under this condition that the constraint on the bed supply is a rational and humane policy. Otherwise, in response to a tight bed supply, nursing homes will give preference to the less disabled and private pay patients. Severely disabled and Medicaid patients will be unable to obtain placement and will either create backlogs in acute hospitals (for which Medicaid must pay) or will remain unserved in the community

Long Term Care for the Mentally Ill or Mentally Retarded. Long term care services for the mentally ill and mentally retarded represents a continuum of residential services from a more to less restrictive setting, based on the individual's needs. The Plan recognizes that services are presently provided within State mental hospitals and State schools for the retarded, but proposes a strong commitment to reduced reliance on these services as community residential services and other alternatives are developed. During the transition, the State will have to maintain and support a dual system of care. Institutions must be given adequate funding to maintain quality and provide active treatment while patients are being deinstitutionalizaed. In addition, there must be a significant amount of funding to initiate the development of community residential alternatives such as intermediate care facilities for the mentally retarded (ICFMRs), psychiatric nursing homes, and community residences. Such a commitment recognizes the needs of those in institutions as well as those residing in the community who were previously institutionalized, as well as those never before institutionalized.

Summary of Recommendations. Recommendations in the Plan regarding long term care are highlighted below:

- The growth in the supply of nursing homes should be constrained. The planned reduction in the bed/population ratio is wholly dependent on the development of a comprehensive and coordinated system of non-institutional services.

- The funding and supply of alternatives such as home health care, homemaker services, adult day care, and congregate housing, should be very substantially increased. It is recommended that the Commonwealth increase its expenditures for long term care alternatives from $33.4 million in fiscal year 1978 to $62.4 million in fiscal year 1981. This figure may be reduced if the supply of institutional services exceeds the need.

- In order to foster the expansion of home health services, the Departments of Public Health and Public Welfare should jointly develop new requirements for Medicare and Medicaid reimbursement which emphasize comprehensive services and lengthened hours of available service. In addition, the Commonwealth should fund a grant program to aid agency consolidations and service expansion.

- Community residential alternatives for the mentally ill and mentally retarded should be available so that no one remains unncessarily institutionalized or is inadequately served in the community. Such alternatives include nursing homes for the mentally ill, and intermediate care facilities for the mentally retarded (ICFMRs).

- The population of State mental hospitals and State schools for the retarded should be reduced as alternatives are developed. Patient placement within a geographic area should be based on an individual service plan which identifies the persons and agencies responsible for follow-along care, treatment, and rehabilitation.

HEALTH MANPOWER COMPONENT OF THE STATE HEALTH PLAN: SUMMARY

The purpose of the Health Manpower component is to provide an introduction to the area of health manpower and to present several issues concerning the education, supply, utilization, distribution, and coordination of health manpower in the Commonwealth. Health manpower has been defined as: collectively, all men and women working in the provision of health services. whether as individual practitioners or employees of health institutions and programs, and whether or not subject to public regulation.

Massachusetts is fortunate to have a comparative abundance of health manpower. In some respects, their number, distribution (both geographically and by specialty) and training have implications for the access, cost, intensity, and quality of health care in Massachusetts. Some of these issues are introduced. The component is not intended to represent the state of the art in health manpower planning. Subsequent State Health Plans will investigate health manpower data and issues in greater depth.

This section includes information on physicians, nurses, clinical pharmacists, and social workers. Data on selected health manpower categories appear in other components of the Plan as well.

Issues discussed in the Health Manpower component include: specialization, Foreign Medical Graduates, and coordination and planning.

Emphasis in medical training on highly sophisticated care for complicated injuries or illnesses has resulted in a nationwide overabundance of physician specialists. The Health Professions Educational Assistance Act (P.L. 94-484) passed in 1976 with the major aim of producing more primary care practitioners by restructuring residency training programs. In analyzing the requirements of P.L. 94-484, the data suggest that Massachusetts is already relatively well situated in terms of the proportion of first-year residency positions in primary care, with an overall total of over forty percent in 1976-1977. If Massachusetts maintains the trend established in the past three years, it is safe to assume that the state as a whole will be in full compliance with P.L.94-484. Significant changes in residency training offerings, however, will be necessary in order to meet the 1980 requirement that fifty percent of filled first-year residency positions must be in primary care.

Specialization has also affected other categories of health manpower. The many educational institutions in Massachusetts offer a tremendous variety of programs at all levels--associate degree, baccalaureate, master's level, and beyond--in health manpower training. Many of these programs are highly specialized, tailored to specific types of medical technology. There are several consequences of this expansion in technologist training. First, employment opportunities for graduates of these programs are decreasing in Massachusetts. In response to cost control pressures, institutions are limiting their staff expansion or technology purchases. On the other hand, the presence and utilization of more and more highly trained personnel per patient increase the costs of care.

Specialization is necessary to a point; advances in medical technology demand it. The speed of technological change and the likelihood of rapid obsolesence of highly specialized skills should produce a system of training, certification and advancement which emphasizes the common problems of dealing with the technology. The basic direction must be shifted from differentiation toward flexibility, so that as technology changes, retraining requirements will be reduced. The SHPDA, HSAs, State Department of Education, various health professional schools, hospital representatives, and other interested parties should evaluate this issue.

A large portion of the current physician supply in the United States is the group that has received training outside the United States. Some of these foreign medical graduates (FMGs) are U.S. citizens who sought training in foreign countries. Most, however, are foreign citizens who have come here to improve their training or who wish to immigrate. These FMGs represented approximately thirty percent of the active physicians and about thirty-three percent of the hospital interns and residents in 1975. FMGs may also affect the distribution of physician supply in the United States. Although research is limited, studies indicate that, at the state level, FMGs tend to concentrate in more urbanized areas which usually have more physicians than other areas. It has been argued that the interstate and urban-rural differences in the physician to population rations are aggravated by the presence of FMGs.

Developing guidelines for use in determining and assessing health manpower needs is an important but very difficult undertaking. One of the major problems is selection of an acceptable and appropriate methodology for judging the adequacy of the existing supply of manpower. No single method has proven entirely satisfactory or universally applicable, and there is little consensus on what the standard should attempt to measure, or how the measurement should be made.

Health manpower planning at the State level is fragmented. In part, this is because health manpower planning and health planning systems are relatively new concepts. In addition, little or no formal coordination of manpower planning activities exists at the state or regional level. For example, accreditation, certification, and licensure of the health professions are performed by isolated agencies with varying requirements, responsibilities, and controls. The only working relationships are those that have been created informally. Educators and health planners have often evaluated manpower needs independently. Data collection and analysis have been conducted separately for educational and health planning purposes. Health manpower information systems should include standardized procedures for data collection and dissemination of current and projected supplies. Such standardization should apply to health and education agencies and institutions so that sharing and comparison of data are possible.

Planning must be coordinated across agencies, with the SHPDA taking a lead role in this endeavor. At a minimum, more intensive communication and information exchange is needed between planners in education and health. Such a group could begin to discuss the numerous issues and data collection, duplication of effort, program coordination and joint policy development.